If you are using a printed copy of this procedure, and not the on-screen version, then you MUST make sure the dates at the bottom of the printed copy and the on-screen version match.
The on-screen version of the Collider-Accelerator Department Procedure is the Official Version.
Hard copies of all signed, official, C-A Operating Procedures are kept on file in the C-A ESHQ Training Office, Bldg. 911A.

C-A OPERATIONS PROCEDURES MANUAL

7.1.49 Shutdown of the Cold Turbine Oil Skid

Text Pages 2 through 4

Hand Processed Changes

HPC No.	Date	Page Nos.	Initials

Approved: _____***Signature on File***_____ _____
Collider-Accelerator Department Chairman Date

C. Salat

7.1.49 Shutdown of the Cold Turbine Oil Skid

1. Purpose

To provide instruction on the shutdown of the cold turbine oil skids. This will need to be completed when shutting down one or both turbine trains.

2. Responsibilities

2.1 The Shift Supervisor, or an operator designated by the Shift Supervisor, is responsible for conducting this procedure and for providing documentation in the Cryogenic Control Room Log.

22 Should a problem arise in the process of this procedure, the Shift Supervisor shall report to the Technical Supervisor for instructions before continuing.

3. Prerequisites

3.1 Associated turbine train not running.

4. Precautions

4.1 If there is liquid helium in the refrigerator pots, all personnel entering the refrigeration wing of Bldg. 1005R must be ODH 1 qualified, have a Personal Oxygen Monitor (POM), and carry an escape pack.

5. Procedure

5.1 Shutdown of Turbines 5A and 6A

_____ 5.1.1 Date_____.

_____ 5.1.2 Stop oil to expanders 5A and 6A by placing the "Lube Oil Selector" switch to "Off".

_____ 5.1.3 Allow oil to drain back to sump.

_____ 5.1.4 Isolate seal gas supply by closing valve H10779M____.

_____ 5.1.5 Close the following valves located near turbine 5A/6A pod:

E909M____ E903M____
E904M____ H1250M____

_____ 5.1.6 Ensure the following high pressure and main drain valves are left open to let oil

drain from pods 5/A, 6/A.

E915M____ E916M____
E896M____ E900M____

_____ 5.1.7 Install mechanical brake assemblies on turbines 5A and 6A, as per C-A-OPM 7.1.26, "Expander Brake System Installation and Removal."

_____ 5.1.8 If the skid is to be fully shut down ("A" and "B" trains), complete section 5.3.

5.2 Shutdown of Turbines 5B and 6B

_____ 5.2.1 Date _____.

_____ 5.2.2 Stop oil to expanders 5B and 6B by placing "Lube Oil Selector" switch to "Off".

_____ 5.2.3 Allow oil to drain back to sump.

_____ 5.2.4 Isolate seal gas supply by closing valve H10780M.

_____ 5.2.5 Close the following valves located near turbine 5B/6B pod:

E972M____ E981M____
E982M____ H1251M____

_____ 5.2.6 Ensure the following High Pressure and Main Drain valves are left open to let oil drain from pods 5/B, 6/B:

E1002M____ E1003M____
E973M____ E978M____

_____ 5.2.7 Install mechanical brake assemblies on turbines 5A and 6A per C-A-OPM 7.1.26, "Expander Brake System Installation and Removal."

_____ 5.2.8 If the skid is to be fully shut down ("A" and "B" trains), complete section 5.3.

5.3 Shutdown of Skid

Caution:
Do not isolate the oil sump from the seal gas compressor or stop oil pumps unless both turbine trains ("A" and "B") are shut down.

_____ 5.3.1 Stop oil pump by placing “Pump Select” switch to “Off”.

_____ 5.3.2 Isolate seal gas and drainer gas return by closing the following valves:

H1241M____	H1244M____
H1242M____	H1245M____
H1243M____	

6. Documentation

6.1 The check-off lines on the procedure are for place-keeping only. The procedure is not to be initialed or signed, it is not a record.

6.2 The Shift Supervisor shall document the completion of the procedure in the Cryogenics Control Room Log.

7. References

7.1 Drawing 3A995075, Cold Expanders 5 and 6 System Schematic.

7.2 C-A-OPM 7.1.26, “Expander Brake System Installation and Removal”.

8. Attachments

None